SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: ARDEX FEATHER FINISH® XF™
Product ID No.: 70119151
Trade Name/Synonyms: XF
Material Use: Cement-based Finishing Underlayment
Uses Advised Against: Use only as recommended in the product’s Technical Data Sheet.
Manufacturer's name and address: ARDEX L.P.
400 Ardex Park Dr.
Aliquippa, PA 15001 USA
Information Telephone No.: (888) 512-7339 or (724) 203-5000
Website Address: http://www.ardexamericas.com
24 Hr Emergency Telephone #: CHEM-TEL: 1-800-255-3924 OR 1-813-248-0585 (call collect)

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification according to 29 CFR 1910.1200 (OSHA HCS 2012) / HPR (WHMIS 2015)
Skin Irritation 2
Eye Dam. 1
Carc. 1
STOT RE 1

GHS Pictograms

Signal Word Danger

Hazard Statements
Causes skin irritation.
Causes serious eye damage.
May cause cancer by inhalation.
Causes damage to lungs through prolonged or repeated inhalation.

Precautionary Statements
Obtain special instructions before use. (See Section 7.) Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash hands and exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection. Wash contaminated clothing before reuse. Protect from sunlight. Dispose of contents / container in accordance with federal, state, and local laws. Do not allow product to enter drains.

Hazards Not Otherwise Classified None

% With Unknown Acute Toxicity: Up to 40% by weight of this product consists of ingredients with unknown acute toxicity.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS
The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

**Note: Crystalline Silica (Quartz) is not intentionally added to this product but is a naturally occurring component in Limestone (Calcium Carbonate). Exposure monitoring tests using typical occupational procedures found no measurable respirable crystalline silica in the breathing space of a worker mixing this product during an 8-hour work shift.

### SECTION 4 – FIRST AID MEASURES

**General**: Get medical attention if you feel unwell.

**Inhalation**: Not expected to cause symptoms.

**Skin contact**: Remove contaminated clothing. Flush affected skin with water. If irritation persists: seek medical attention/advice.

**Eye contact**: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

**Ingestion**: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

**Notes for Physician**: Treat symptomatically.

**Signs and symptoms of short-term (acute) exposure**

- **Inhalation**: Symptoms may include coughing and irritation.
- **Skin**: Symptoms may include redness and itching.
- **Eyes**: Direct contact may strongly irritate or burn the eyes. Could cause blindness.
- **Ingestion**: Symptoms such as gastric pain, nausea, vomiting, and diarrhea may occur.

**Indication of need for immediate medical attention or special treatment**

- In case of accident or ailment, seek medical advice immediately (show label or SDS if possible).

### SECTION 5 – FIRE FIGHTING MEASURES

**Suitable extinguishing media**: Carbon dioxide, dry chemical powder, foam.

**Unsuitable extinguishing media**: Water. Water will damage the paper bags. Contact of the product with water will form caustic alkaline material.

**Hazardous combustion products**: Calcium oxide, calcium oxalate, acetic acid, formic acid, formaldehydes, carbon monoxide, and carbon dioxide.

**Special fire-fighting procedures/equipment**: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so.

**Environmental precautions**: Do not allow material to enter drains or contaminate ground water system.

**Fire hazards/conditions of flammability**: Product is not flammable. Packaging is paper and plastic.

**Flammability classification (OSHA 29 CFR 1910.1200, WHMIS 2015)**

- Not flammable

### SECTION 6 – ACCIDENTAL RELEASE MEASURES
Personal precautions: Restrict access to area until completion of clean-up.

Protective equipment: Refer to Section 8 for additional information on acceptable personal protective equipment.

Emergency Procedures: This product does not contain any chemicals that must be reported to the EPA in the event of a spill or release. For advice on chemical spills with this product, call the emergency number listed in Section 1.

US CERCLA Reportable quantity (RQ): None reported.

Methods and materials for containment and cleaning up: Ventilate area of release. Stop spill or leak at source if safely possible. Contain material, preventing it from entering sewer lines or waterways. Using HEPA vacuum, or other dustless methods, gather up spilled material and place in suitable container for later disposal (see Section 13).

Prohibited materials: Avoid adding water, material becomes alkaline when wet.

Environmental precautions: Do not allow product to enter drains or waterways. Do not allow material to contaminate ground water system.

Reference to other sections: See Section 13 for disposal information.

SECTION 7 – HANDLING AND STORAGE

Special instructions: Mixing the product according to the directions in the Technical Data Sheet will not produce measurable levels of airborne respirable crystalline silica, as determined by NIOSH 7500 exposure monitoring.

Safe handling procedures: See Section 8 for additional information on Permissible Exposure Levels for individual components and recommendations for Personal Protection Equipment (PPE). Do not breathe dust. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

Storage requirements: Store in a cool, dry area. Store away from heat and open flame. Avoid storing in direct sunlight. Store in original container.

Incompatible materials: See Section 10.

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits: No exposure limits have been established for the product itself. Below are exposure limits for the components in the product.

<table>
<thead>
<tr>
<th>Threshold Limit Values for the Ingredients</th>
<th>CAS #</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>PEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>STEL</td>
</tr>
<tr>
<td>Calcium aluminate cement</td>
<td>65997-16-2</td>
<td>1 mg/m³ (as Aluminum metal and insoluble compounds)</td>
<td>N/Av</td>
</tr>
<tr>
<td>Limestone</td>
<td>1317-65-3</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
<tr>
<td>Calcium sulfate</td>
<td>7778-18-9</td>
<td>10 mg/m³ (total dust); 3 mg/m³ (respirable)</td>
<td>N/Av</td>
</tr>
<tr>
<td>VA/E copolymer</td>
<td>24937-78-8</td>
<td>1 mg/m³ (respirable, no asbestos and &lt; 1% crystalline silica)</td>
<td>N/Av</td>
</tr>
<tr>
<td>Portland cement</td>
<td>65997-15-1</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
</tbody>
</table>
### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state</th>
<th>solid</th>
<th>Appearance</th>
<th>gray powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>No odor</td>
<td>Odor threshold</td>
<td>N/Av</td>
</tr>
<tr>
<td>pH</td>
<td>10 – 11</td>
<td>Specific gravity</td>
<td>2.7 – 3.1</td>
</tr>
<tr>
<td>Boiling point</td>
<td>N/Ap</td>
<td>Coefficient of water/oil distribution</td>
<td>N/Av</td>
</tr>
<tr>
<td>Melting/Freezing point</td>
<td>N/Av</td>
<td>Solubility in water</td>
<td>&lt; 55 g/L</td>
</tr>
<tr>
<td>Vapor pressure (mm Hg @ 20°C / 68°F)</td>
<td>N/Av</td>
<td>Evaporation rate (n-Butyl acetate = 1)</td>
<td>N/Av</td>
</tr>
<tr>
<td>Vapor density (Air = 1)</td>
<td>N/Av</td>
<td>Volatiles (% by weight)</td>
<td>N/Av</td>
</tr>
<tr>
<td>Volatile organic compounds (VOCs)</td>
<td>0 g/L</td>
<td>Flammability classification</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Particle size</td>
<td>N/Av</td>
<td>Lower flammable limit (% by vol)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point method</td>
<td>N/Av</td>
<td>Upper flammable limit (% by vol)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>N/Av</td>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
<td>Oxidizing properties</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**Explosion data:** Sensitivity to mechanical impact / static discharge
- Not expected to be sensitive to mechanical impact or static discharge.

### SECTION 10 – REACTIVITY AND STABILITY INFORMATION

**Reactivity**: Contact with water may cause hydration and formation of caustic calcium hydroxide.

**Stability**: Stable under the recommended storage and handling conditions prescribed.

**Hazardous reactions**: Hazardous polymerization does not occur.

**Conditions to avoid**: Excessive heat.

**Materials to avoid and incompatibility**: Oxidizing agents.

**Hazardous decomposition products**: None known, refer to hazardous combustion products in Section 5.

### SECTION 11 – TOXICOLOGICAL INFORMATION

**Routes of exposure**:
- **Inhalation**: YES
- **Skin Absorption**: NO
- **Skin and Eyes**: YES
- **Ingestion**: YES
Symptoms of exposure: See Section 4.

Calculated Acute Toxicity Estimates for the Product

Inhalation: Not Available
Oral: Not Available
Dermal: Not Available

Toxicological data: There are insufficient data for estimating the product’s acute toxicity. See below for individual ingredient acute toxicity data.

<table>
<thead>
<tr>
<th>Acute Toxicity Parameters for the Ingredients</th>
<th>CAS #</th>
<th>LC50, Inhalation mg/L, Rat, 4 hr</th>
<th>LD50, Oral mg/kg, rat</th>
<th>LD50, Dermal mg/kg, rabbit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium aluminate cement</td>
<td>65997-16-2</td>
<td>N/Av</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
<tr>
<td>Limestone</td>
<td>1317-65-3</td>
<td>N/Av</td>
<td>6450</td>
<td>N/Av</td>
</tr>
<tr>
<td>Calcium sulfate</td>
<td>7778-18-9</td>
<td>N/Av</td>
<td>&gt; 3,000</td>
<td>N/Av</td>
</tr>
<tr>
<td>VA/E copolymer</td>
<td>24937-78-8</td>
<td>N/Av</td>
<td>&gt; 1,000</td>
<td>N/Av</td>
</tr>
<tr>
<td>Portland cement</td>
<td>65997-15-1</td>
<td>N/Av</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
<tr>
<td>Crystalline silica, quartz</td>
<td>14808-60-7</td>
<td>N/Av</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
</tbody>
</table>

Skin corrosion or irritation: Causes skin irritation. Prolonged exposure to wet product may cause skin burns.

Serious eye damage / eye irritation: Causes eye burns. May cause blindness.

Respiratory or skin sensitization: Portland cement may cause an allergic skin reaction in hypersensitive individuals, possibly due to trace amounts of chromium.

Germ cell mutagenicity: None known.

Carcinogenic status: This product contains trace amounts of Crystalline silica. Crystalline silica (respirable size) is classified as carcinogenic by inhalation by IARC (Group 1), ACGIH (Group A2), NTP (Group 1) and OSHA (OSHA Select carcinogen). No other components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive toxicity: None known.

Specific Target Organ Toxicity, Single Exposure: May cause respiratory irritation.

Specific Target Organ Toxicity, Repeated Exposure: May cause lung damage (silicosis) upon repeated or prolonged exposure. Silicosis may be accompanied by complications such as kidney damage and autoimmune disorders.

Aspiration hazard: None known.

Additional information: N/Av

SECTION 12 – ECOLOGICAL INFORMATION

Environmental effects: The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters.

Ecotoxicological: No data is available on the product itself.

Ecotoxicity: No data available.
Biodegradability: No data available.
Bioaccumulative potential: No data available.
Mobility in soil: No data available.
PBT and vPvB assessment: No data available.
Other adverse effects: No data available.

SECTION 13 – DISPOSAL CONSIDERATION

Handling for disposal: Handle waste according to recommendations in Section 7.

Methods of disposal: Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

Packaging: Handle contaminated packaging in the same manner as the product.
RCRA: For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 – TRANSPORTATION INFORMATION

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN Number</th>
<th>Shipping Name</th>
<th>Class</th>
<th>Packing Group</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG</td>
<td>None</td>
<td>This product is not regulated according to Canadian TDG regulations.</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>TDG Additional Information</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>49 CFR/DOT</td>
<td>None</td>
<td>This product is not regulated according to US DOT regulations.</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>49 CFR/DOT Additional Information</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Not regulated by IMDG.
Not regulated by IATA.
Not a Marine Pollutant.

SECTION 15 – REGULATORY INFORMATION

Canadian Information:
This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR). This SDS contains all information required by the HPR.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on either the Domestic Substances List (DSL) or the Non- Domestic Substances List (NDSL).

US Federal Information:
TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None reported.

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes:
Immediate (Acute) Health Hazard
Chronic Health Hazard.

Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above de minimus concentrations.

U.S. State Right to Know Laws
California Proposition 65: See product label for information regarding Proposition 65.

Other State Right to Know Laws:

<table>
<thead>
<tr>
<th>Ingredient on State RTK Law?</th>
<th>CAS #</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>NY</th>
<th>PA</th>
<th>RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium aluminate cement</td>
<td>65997-16-2</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Limestone</td>
<td>1317-65-3</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Calcium sulfate</td>
<td>7778-18-9</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Portland cement</td>
<td>65997-15-1</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Crystalline silica, quartz</td>
<td>14808-60-7</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

SECTION 16 – OTHER INFORMATION
Disclaimer of Liability

The information presented herein is supplied as a guide to those who handle or use this product and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive. The manner and conditions of use and handling may involve other and additional considerations. Safe work practices must be employed when working with any materials. It is important that the end user determines the adequacy of the safety procedures employed during the use of this product.

No warranty of any kind is given or implied. ARDEX L.P. will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein.

Prepared By:
ARDEX L.P.
400 Ardex Park Drive
Aliquippa, PA, U.S.A.
15001

(724) 203-5000
Visit our Website: http://www.ardexamericas.com

Revision date: 24-Oct-2019

End of Document